



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,139	04/04/2001	Keith E. Moll	1545	2337

28005 7590 05/18/2006

SPRINT
6391 SPRINT PARKWAY
KSOPHT0101-Z2100
OVERLAND PARK, KS 66251-2100

EXAMINER

CHO, UN C

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

RECEIVED

MAY 18 2006

Technology Center 2600

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/826,139
Filing Date: April 04, 2001
Appellant(s): MOLL ET AL.

Richard A. Machonkin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/22/2006 appealing from the Office action mailed 8/10/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,434,381	Moore et al.	8/13/2002
6,385,458	Papadimitriou et al.	5/7/2002
6,650,902	Richton	11/18/2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 2, 6, 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al. (US 6,434,381 B1) in view of Papadimitriou et al. (US 6,385,458 B1).

Regarding claim 4, Moore discloses a method for providing location based information to a mobile station in communication with a cellular wireless system, the method comprising the steps of: receiving a request for location based information regarding a service (fixed portion of the wireless communication system receiving a request for local information and services, Moore, Col. 3, lines 10 – 18), the request including a service identifier (the request including a profile), wherein the service identifier is associated with the service (according to the profile, local information and services for the particular mobile station is generated custom-tailored to a predetermined area around the location, Moore, Col. 4, line 64 through Col. 5, line 12); receiving a position of the mobile station

associating a provider-defined region with the position of the mobile station and with the service identifier (Moore, Col. 4, lines 48 – 63); and retrieving the location based information, wherein the location based information is associated with the provider-defined region (Moore, Col. 4, line 64 through Col. 5, line 19).

However, Moore as applied above does not specifically disclose associating a level of granularity with the service identifier; based on the service identifier, instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity. In an analogous art, Papadimitriou remedies the deficiencies of Moore by disclosing the feature of associating a level of granularity with the service identifier (location request as being a service identifier is associated with a priority information); based on the service identifier, instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity (an estimate of the location of the terminal device is based on the location request and priority information, whereas the priority information determines whether the location estimate is to be determined at a higher precision or lower precision; Papadimitriou, Col. 5, lines 56 – 64 and Col. 6, lines 41 – 48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Papadimitriou to the system of Moore in order to provide a location estimate for a terminal device associated with a user with precision for a more efficient position determining.

Regarding claim 2, Moore in view of Papadimitriou as applied to claim 4 above discloses location-based server having stored therein instructions to execute the method of claim 4 (Moore, Col. 3, lines 32 – 36 and 51 – 56, Col. 4, lines 64 – 67, Col. 5, lines 6 – 12 and Papadimitriou, Col. 4, lines 49 – 57, Col. 5, lines 37 – 46 and 56 – 64).

Regarding claim 6, Moore in view of Papadimitriou as applied to claim 4 above discloses determining whether the level of granularity is a high level of granularity and when the level of granularity is the high level of granularity instructing position determining equipment to provide the position of the mobile station (the accuracy of a mobile phone's location is based on a subscriber's priority information, Papadimitriou, Col. 4, lines 49 – 57, Col. 5, lines 37 – 46 and 56 – 64).

Regarding claim 7, Moore in view of Papadimitriou as applied to claim 4 above discloses receiving global position system coordinates from the mobile station wherein the coordinates represent the position of the mobile station (Moore, Col. 3, lines 24 – 56).

Regarding claim 10, Moore in view of Papadimitriou as applied to claim 4 above discloses reading the local information and services information from a database entry, wherein the database entry is associated with the predetermined region (Moore, Col. 4, lines 64 – 67 and Col. 5, lines 6 – 12).

Regarding claim 11, Moore in view of Papadimitriou as applied to claim 4 above discloses providing the location based information associated with the predetermined region to the mobile station (Moore, Col. 4, lines 64 – 67).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Papadimitriou as applied to claim 4 above, and further in view of Caughran et al. (US 2002/0107029).

Regarding claim 3, Moore in view of Papadimitriou as applied to claim 4 above does not specifically disclose ascertaining a zone layer for the service identifier, wherein the zone layer is a categorization of zones for the service identifier, selecting a zone from the zone layer wherein the zone corresponds to the position of the mobile station and determining the provider-defined region that encompasses the zone. In an analogous art, Caughran discloses including a zone type in the request, wherein the zone type is a categorization of zones of predetermined geographical area, selecting a geographical data from the zone type, wherein the zone based geographical data corresponds to the position of the mobile subscriber unit and determining the geographical data with respect to the zone type requested (Caughran, Paragraph 0005, lines 7 – 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Caughran to the modified system of Moore and Papadimitriou in order to provide a more efficient way for obtaining geographical zone data for a mobile subscriber unit.

Art Unit: 2617

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Papadimitriou as applied to claim 4 above, and further in view of Alperovich et al. (US 6,233,448).

Regarding claim 5, Moore in view of Papadimitriou as applied to claim 4 above discloses determining whether the level of granularity is a low level of granularity (the accuracy of a mobile phone's location is based on a service priority information, Papadimitriou, Col. 4, lines 49 – 57, Col. 5, lines 37 – 46 and 56 – 64).

However, Moore in view of Papadimitriou as applied above does not specifically disclose assigning a cell identifier as the position of the mobile station. In an analogous art, Alperovich discloses assigning a cell ID to determine the general position of the mobile station (Alperovich, Col. 3, lines 49 – 50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Alperovich to the modified system of Moore and Papadimitriou in order to performing selected actions based upon the location of a mobile station in a mobile communications network.

5. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Papadimitriou as applied to claim 4 above, and further in view of Chern (US 2003/0060211).

Regarding claim 8, Moore in view of Papadimitriou as applied to claim 4 above does not specifically disclose mapping the provider-defined region to a universal resource locator, transmitting a request for the location based information to the universal resource locator and receiving a response containing the location based information from the universal resource locator. In an analogous art, Chern discloses creating the service provider to the web page URL, transmitting a request for the location based information to the URL and receiving a response containing the location of the location based information from the URL (Chern, Page 6, Paragraph 0074 and 0075). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Chern to the modified system of Moore and Papadimitriou in order to provide a way to add new features to the communication devices to create a more efficient location based information retrieval system for a wireless communication device.

Regarding claim 15, Moore in view of Papadimitriou and further in view of Chern discloses associating a surrogate identifier with the mobile station, wherein the request includes the surrogate identifier but no other identifier for the mobile station; determining whether the response contains the surrogate identifier and when the response contains the surrogate identifier associating the location based information with the mobile station (mobile station transmits a request message to the wireless communication system whereas the message

inherently contains identification which identifies the mobile station requesting the service, Moore, Col. 4, lines 17 – 63).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al. in view of Papadimitriou et al. as applied to claim 4 above, further in view of Chern (US 2003/0060211) and further in view of Richton (US 6,650,902 B1).

Regarding claim 9, Moore in view of Papadimitriou as applied above discloses a method for providing location based information to a mobile station in communication with a cellular wireless system, the method comprising the steps of: receiving a request for location based information regarding a service (fixed portion of the wireless communication system receiving a request for local information and services, Moore, Col. 3, lines 10 – 18), the request including a service identifier (the request including a profile), wherein the service identifier is associated with the service (according to the profile, local information and services for the particular mobile station is generated custom-tailored to a predetermined area around the location, Moore, Col. 4, line 64 through Col. 5, line 12); associating a level of granularity with the service identifier (location request as being a service identifier is associated with a priority information); based on the service identifier, instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity (an estimate of the location of the terminal device is based on the location request and priority information, whereas the priority information determines

whether the location estimate is to be determined at a higher precision or lower precision; Papadimitriou, Col. 5, lines 56 – 64 and Col. 6, lines 41 – 48); receiving a position of the mobile station; associating a provider-defined region with the position of the mobile station and with the service identifier (Moore, Col. 4, lines 48 – 63); and retrieving the location based information, wherein the location based information is associated with the provider-defined region (Moore, Col. 4, line 64 through Col. 5, line 19).

However, Moore in view of Papadimitriou as applied above does not specifically disclose wherein the retrieving step comprises the steps of: mapping the provider-defined region to a universal resource locator; transmitting a request for the location based information to the universal resource locator; receiving a response containing the location based information from the universal resource locator. In an analogous art, Chern discloses mapping the provider-defined region to a universal resource locator, transmitting a request for the location based information to the universal resource locator, receiving a response containing the location based information from the universal resource locator (creating the service provider to the web page URL, transmitting a request for the location based information to the URL and receiving a response containing the location of the location based information from the URL (Chern, Page 6, Paragraph 0074 and 0075). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Chern to the modified system of Moore and Papadimitriou in order

to provide a way to add new features to the communication devices to create a more efficient location based information retrieval system for a wireless communication device.

However, Moore in view of Papadimitriou and further in view of Chern as applied above does not specifically disclose associating a surrogate identifier with the mobile station, wherein the request includes the surrogate identifier but no other identifier for the mobile station; determining whether the response contains the surrogate identifier; and when the response contains the surrogate identifier, associating the location based information with the mobile station. In an analogous art, Richton discloses associating a surrogate identifier with the mobile station, wherein the request includes the surrogate identifier but no other identifier for the mobile station; determining whether the response contains the surrogate identifier; and when the response contains the surrogate identifier, associating the location based information with the mobile station (Richton, Col. 10, lines 36 – 47). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Richton to the modified system of Moore, Papadimitriou and Chern in order to provide a more efficient system, which tailors beneficial information to specific individuals.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richton (US 6,650,902 B1) in view of Papadimitriou et al. (6,385,458 B1)

Regarding claim 12, Richton discloses a wireless switching station (Richton, Fig. 2, 220), location-determining server (Richton, Fig. 3, 303), a location-based controller (Richton, Fig. 3, 301) connected to the wireless switching station and to the location-determining server, receiving from the switch a request for location based information regarding a service (Richton, Col. 2, line 59 through Col. 3, line 8), wherein the request includes local information and services (Richton, Col. 3, lines 9 – 28), associating a predetermined region with the position of the mobile station and with the local information and services (Richton, Col. 8, lines 58 – 66), retrieving the local information and services associated with the predetermined region and providing the local information and services to the wireless switching station for forwarding to the mobile station (Richton, Col. 7, lines 50 – 52).

However, Richton as applied above does not specifically disclose associating a level of granularity with the service identifier and based on the service identifier instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity. In an analogous art, Papadimitriou discloses associating a level of granularity with the service identifier and based on the service identifier instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity (location request as being a service identifier is associated with a priority information, thus an estimate of the location of the terminal device is based on the location request and priority information, whereas the priority

information determines whether the location estimate is to be determined at a higher precision or lower precision; Papadimitriou, Col. 5, lines 56 – 64 and Col. 6, lines 41 – 48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Papadimitriou to the system of Richton in order to allow flexibility in using and allocating mobile communication network resources to estimate the location of a mobile phone, providing additional sources of revenue for mobile communication network operators.

8. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richton (US 6,650,902 B1) in view of Papadimitriou et al. (6,385,458 B1) in view of Caughran (US 2002/0107029) and in view of Chern (US 2003/0060211).

Regarding claim 13, Richton discloses a method for providing location based information to a mobile station in communication with a cellular wireless system, the method comprising the steps of receiving a service identifier, wherein the service identifier is associated with a service (Richton, Col. 3, lines 15 – 28 and lines 39 – 66 and Col. 6, lines 31 – 34 and 46 – 52).

However, Richton does not specifically disclose associating a level of granularity with the service identifier, instructing the cellular wireless system to determine a position of the mobile station at the associated level of granularity. In an analogous art, Papadimitriou discloses associating a level of granularity with the service identifier, instructing the cellular wireless system to determine a

position of the mobile station at the associated level of granularity (the accuracy of a mobile phone's location is based on a subscriber priority set by the system, Papadimitriou, Col. 4, lines 49 – 57, Col. 5, lines 37 – 46 and 56 – 64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Papadimitriou to the technique of Richton in order to allow flexibility in using and allocating mobile communication network resources to estimate the location of a mobile phone, providing additional sources of revenue for mobile communication network operators.

However, Richton in view of Papadimitriou as applied above does not specifically disclose associating a zone layer with the service identifier, wherein the zone layer is a categorization of zones for the service identifier; selecting a zone from the zone layer wherein the zone corresponds to the position of the mobile station; determining a provider-defined region that encompasses the zone. In an analogous art, Caughran discloses associating a zone layer with the service identifier, wherein the zone layer is a categorization of zones for the service identifier; selecting a zone from the zone layer wherein the zone corresponds to the position of the mobile station and determining a provider-defined region that encompasses the zone (Caughran, Paragraph 0005, lines 7 – 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Caughran to the modified system of Richton and Papadimitriou in order to provide a more efficient way for obtaining geographical zone data for a mobile subscriber unit.

However, Richton in view of Papadimitriou and in view of Caughran does not specifically disclose mapping the provider-defined region to a universal resource locator; transmitting a request for the location based information to the universal resource locator; receiving a response containing the location based information from the universal resource locator and providing the location based information to the mobile station. In an analogous art, Chern discloses mapping the provider-defined region to a universal resource locator, transmitting a request for the location-based information to the universal resource locator, receiving a response containing the location based information from the universal resource locator and providing the location based information to the mobile station (creating the service provider to the web page URL, transmitting a request for the location based information to the URL and receiving a response containing the location of the location based information from the URL, Chern, Page 6, Paragraph 0074 and 0075). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Chern to the modified system of Richton, Papadimitriou and Caughran in order to provide a way to add new features to the communication devices to create a more efficient location based information retrieval system for a wireless communication device.

Regarding claim 14, Richton in view of Papadimitriou, in view of Caughran and in view of Chern as applied to claim 13 above discloses location-based

server having stored therein instructions to execute the method of claim 13
(Richton, Col. 3, lines 9 – 28).

(10) Response to Argument

Appellant's remarks have been fully considered but they are deemed not
persuasive for the following reasons.

In response to appellant's argument on page 5 that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Papadimitriou clearly teaches associating a level of granularity with the service identifier (location request as being a service identifier is associated with a priority information); based on the service identifier, instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity (an estimate of the location of the terminal device is based on the location request and priority information, whereas the priority information determines whether the location estimate is to be determined at a higher precision or lower precision; Papadimitriou, Col. 5, lines 56 – 64 and Col. 6, lines 41 – 48). The motivation of

combining Papadimitriou with Moore is to allow flexibility in using and allocating mobile communication network resources in finding the location of mobile phones (Papadimitriou, Col. 4, lines 42 – 45).

In response to appellant's argument on page 6 that the rejection is internally inconsistent, the Appellant pointed out "the Examiner has identified the "location request" in Papadimitriou as the "service identifier", however, inconsistently, the Examiner identified the "priority information" in Papadimitriou as the "service identifier". In this case, the Examiner interpreted location request as being "service identifier" and priority information as being "level of granularity", so that when there is a request for locating the particular terminal device, the request consisting of a location request with priority information, it retrieves the location information based on those parameters providing either a higher precision or lower precision (Papadimitriou, Col. 5, lines 56 – 64 and Col. 6, lines 41 – 48).

In response to appellant's argument on page 7 that the reference by Papadimitriou fails to show that "the request for location based information already **includes** the service identifier that determines the level of precision for locating the mobile station". In this case, Papadimitriou clearly teaches that Location Measurement Unit (LMU) servicing the terminal device uses the priority information generated **in** the location estimate request to determine the position of a terminal device at the requested precision based on the priority information (Papadimitriou, Col. 6, lines 41 – 48), so that, based on the service identifier,

instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity, therefore, Papadimitriou does not teach away from including the service identifier that determines the level of granularity in the request for location based information.

In response to appellant's argument B on page 8 that the Examiner erred in rejecting claim 3 as being obvious over a combination of Moore, Papadimitriou and Caughran. In this case, the combination of Moore/Papadimitriou discloses all the limitations of claim 4 and since Caughran further discloses the limitations of claim 3, the examiner's rejection is proper.

In response to appellant's argument C on page 8 that the examiner erred in rejecting claim 5 as being obvious over a combination of Moore, Papadimitriou and Alperovich. In this case, the combination of Moore/Papadimitriou discloses all the limitations of claim 4 and since Alperovich further discloses the limitations of claim 5, the examiner's rejection is proper.

In response to appellant's argument D on page 9 that the examiner erred in rejecting claims 8 and 15 as being obvious over a combination of Moore, Papadimitriou and Chern. In this case, the combination of Moore/Papadimitriou discloses all the limitations of claim 4 and since Chern further discloses the limitations of claim 8 and 15, the examiner's rejection is proper.

In response to appellant's argument E on page 9 that the examiner erred in rejecting claim 9 as being obvious over a combination of Moore, Papadimitriou, Chern and Richton. In this case, the combination of Moore/Papadimitriou

discloses all the limitations of claim 4 and since Chern and Richton further disclose the limitations of claim 9, the examiner's rejection is proper.

In response to appellant's argument F on page 9 that the reference by Richton "does not refer to receiving any request and also does not refer to the switch (WSC 220) at all". In this case, Richton clearly teaches a Wireless Switch Center (Fig. 2, 220) that is capable of (1) providing wireless communications service to wireless mobile unit, including location-based services based on location of the wireless mobile unit (2) monitoring the movement of wireless mobile unit as it remotely travels; and (3) providing location based information back to the wireless mobile unit based on the observed changing location of the wireless mobile unit (Richton, Col. 2, line 59 through Col. 3, line 8). Moreover, Papadimitriou clearly teaches associating a level of granularity with the service identifier (location request as being a service identifier is associated with a priority information); based on the service identifier, instructing the cellular wireless system to determine the position of the mobile station at the associated level of granularity (an estimate of the location of the terminal device is based on the location request and priority information, whereas the priority information determines whether the location estimate is to be determined at a higher precision or lower precision; Papadimitriou, Col. 5, lines 56 – 64 and Col. 6, lines 41 – 48). The motivation of combining Papadimitriou with Richton is to allow flexibility in using and allocating mobile communication network resources in finding the location of mobile phones (Papadimitriou, Col. 4, lines 42 – 45).

In response to appellant's argument G on page 10 that the reference by Richton fails to teach "receiving a request for location based information regarding a service, the request including a service identifier, wherein the service identifier is associated with the service". In this case Richton clearly teaches the Wireless Switching Center (Fig. 2, 220) is the system in charge of communicating the mobile units with the location based server (Fig. 2, 221) and also to retrieve information from the location based server and transmit back to the mobile unit (Richton, Col. 2, line 59 through Col. 3, line 8), thus the mobile unit does make a request, whereas the request having instruction information in association with the telephone number which indicates information to be output to the wireless mobile unit, and the request is received at the location based server through the WSC and the result is sent back to the wireless mobile through the WSC (Richton, Col. 3, lines 15 – 28 and lines 39 – 66), thus since Papadimitriou Caughran and Chern further discloses the limitations of claim 13, the examiner's rejection is proper.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore, for the above reasons, the Examiner respectfully submits that a ***prima facie*** case of obviousness of the claimed invention has been set forth in

the Final Office action and appellant(s) has/have failed to overcome the ***prima facie*** case of obviousness. Accordingly, it is believed that the Final rejection is proper and the Board of Patent Appeals and Interferences is therefore respectfully urged to sustain the Examiner's rejections.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

May 12, 2006

Conferees:


George Eng
SPE of 2617


Duc M Nguyen
SPE of 2617

Un C Cho
Patent Examiner
Art Unit 2617

5/12/06 uc